



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------------|------------------------|
| 09/801,583 | 03/08/2001 | Christopher Keith | IVEN125463 | 7000 |
| 52531 7590 05/02/2007 CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347 | | | | |
| | | | EXAMINER LIVERSEEDGE, JENNIFER L | |
| | | | ART UNIT 3692 | PAPER NUMBER |
| | | | MAIL DATE 05/02/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/801,583

Applicant(s)

KEITH, CHRISTOPHER

Examiner

Jennifer Liversedge

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/14/2001, 10/13/2006, 12/19/2006.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to Applicant's amendment and request for reconsideration of application 09/801,583 filed on February 28, 2007.

The amendment contains original claims: 2-5, 9-11, 13-16 and 18-26.

The amendment contains amended claims: 1, 6, 12 and 17.

The amendment contains previously presented claims: 7-8.

The amendment contains new claims: 27-46.

Claim Objections

Claims 36-46 are objected to because of the following informalities: application as submitted contains two claims numbered 35. For examination purposes, the second claim 35 was renumbered as claim 36 and the following dependent and independent claims renumbered accordingly. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-27, 30, 33-37 and 40-44 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 5,101,353 to Lupien et al. (further referred to as Lupien).

Regarding claim 1, Lupien discloses a method of facilitating trading among a set of processes having respective owners, comprising:

automatically via a computer (see Fig 1), operating at least one of the processes (see column 5, lines 51-53 and Fig 7) according to an order processing methodology by retrieving a decision table having at least two rules specifying at least one of a discovery strategy and an order handling strategy, each rule having at least one condition and at least one action to be taken when the condition is satisfied (see column 3, lines 43-45 and column 6, lines 24-26 and lines 37-45; column 10, line 9 – column 11, line 9), wherein the decision table further includes a holding tank capable of storing a plurality of orders that have been generated but not yet submitted for execution at a market (Figures 7-8; column 3, lines 7-31; column 7, lines 15-26 and 39-50; column 11, lines 11-20, 34-37 and 66-68; column 12, lines 58-66), and

automatically evaluating whether the at least one condition for each of the rules is satisfied, and for each of the rules having a satisfied condition, automatically, via a computer, configuring the at least one process to act on the at least one action (column 3, lines 7-14 and lines 23-45; column 6, lines 15-26 and lines 37-45; column 10, lines 24-68 and column 11, lines 1-10; column 11, lines 38-44; column 12, lines 26-32, lines 48-51 and lines 53-66),

wherein at least one action of at least one rule in the decision table is to store an order in the holding tank, the holding tank having one or more conditions associated therewith, the method further comprising monitoring the one or more conditions of the holding tank and when the one or more conditions are met, removing the orders from the holding tank and taking at least one specified action with respect to each of the removed orders (Figures 7-8; column 3, lines 7-14; lines 23-36 and lines 43-45; column 6, lines 22-26, lines 37-45; column 7, lines 15-50; column 10, lines 1-23; column 10, line 61 – column 11, line 20; column 11, lines 66-68; column 12, lines 26-66).

Regarding claim 2, Lupien further discloses that wherein the at least one process is a trading process (i.e. buy and sell, see abstract).

Regarding claim 3, Lupien further discloses that wherein the at least one process is a market process (i.e. price fluctuation upward or downward, see abstract).

Regarding claim 4, Lupien further discloses that wherein the at least one condition is based on order characteristics (i.e. the basic investment characteristics, see column 4, lines 60-65).

Regarding claim 5, Lupien further discloses that wherein the at least one condition is based on market characteristics (i.e. the fundamental investment

Art Unit: 3692

characteristics, see column 5, lines 15-17 and column 10, lines 24-68 and column 11, lines 1-10).

Regarding claim 6, Lupien further discloses wherein the holding tank in the decision table is configured to store at least one order until a market-related event occurs (column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 7, lines 15-50; column 9, lines 43-54; column 10, lines 24-68; column 11, lines 1-20; column 12, lines 26-68).

Regarding claim 7, Lupien further discloses wherein the at least one action that the at least one process is configured to act upon includes assigning a value to a parameter (i.e. size, order, limit, see Fig 4).

Regarding claim 8, Lupien further discloses wherein the at least one action that the at least one process is configured to act upon includes transferring to another rule (see column 3, lines 28-45; column 6, lines 53-59; column 10, line 61 - column 11, line 10; column 12, lines 26-53).

Regarding claim 9, Lupien further discloses that wherein at least one of the rules also specifies a time for acting on its at least one action (see column 10, lines 1-7; column 12, lines 53-68).

Art Unit: 3692

Regarding claim 10, Lupien further discloses that wherein the at least one action in at least one of the rules is a wait operation (i.e. based on the market fluctuation, see claim 10; see column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 9, lines 43-54; column 10, lines 24-68 and column 11, lines 1-10; column 12, lines 53-68).

Regarding claim 11, Lupien further discloses that wherein the set of trading processes includes at least two market processes (i.e. price fluctuation upward or downward, see claim 10) and at least two trading processes (i.e. buy and sell, see abstract) and is operative on a platform that enables the trading processes to communicate in a standardized manner (see abstract).

Regarding claim 12, Lupien discloses a method of facilitating trading, comprising:

Automatically, via a computer (Fig 1), retrieving, at an order handling process operated on behalf of a process owner that is one of a plurality of process owners (see column 5, lines 51-53 and Fig 7), a decision table representing an order processing methodology, the decision table having at least two rules specifying at least one of a discovery strategy and an order handling strategy (see column 3, lines 43-45 and column 6, lines 41-45), each rule having at least one condition and at least one action to be taken when the condition is satisfied (column 3, lines 7-14 and lines 23-45; column 6, lines 15-26 and lines 37-45; column 10, lines 24-68 and column 11, lines 1-10; column 11, lines 38-44; column 12, lines 26-32, lines 48-51 and lines 53-66), wherein the

Art Unit: 3692

decision table further includes a holding tank capable of storing a plurality of orders that have been generated but not yet submitted for execution at a market (Figures 7-8; column 3, lines 7-31; column 7, lines 15-26 and 39-50; column 11, lines 11-20, 34-37 and 66-68; column 12, lines 58-66), and

automatically, via a computer, applying, at the order handling process, the decision table to process an order when a specified event occurs (column 3, lines 7-14 and lines 23-45; column 6, lines 15-26 and lines 37-45; column 10, lines 24-68 and column 11, lines 1-10; column 11, lines 38-44; column 12, lines 26-32, lines 48-51 and lines 53-66),

wherein at least one action of at least one rule in the decision table is to store an order in the holding tank, the holding tank having one or more conditions associated therewith, the method further comprising monitoring the one or more conditions of the holding tank and when the one or more conditions are met, removing the orders from the holding tank and taking at least one specified action with respect to each of the removed orders (Figures 7-8; column 3, lines 7-14, lines 23-36 and lines 43-45; column 6, lines 22-26, lines 37-45; column 7, lines 15-50; column 10, lines 1-23; column 10, line 61 – column 11, line 20; column 11, lines 66-68; column 12, lines 26-66).

Regarding claim 13, Lupien further discloses that wherein the order handling process is a trading process (i.e. buy and sell, see abstract).

Regarding claim 14, Lupien further discloses that wherein the order handling process is a market process (i.e. price fluctuation upward or downward, see abstract).

Regarding claim 15, Lupien further discloses that wherein the at least one condition is based on order characteristics (i.e. the basic investment characteristics, see column 4, lines 60-65).

Regarding claim 16, Lupien further discloses that wherein the at least one condition is based on market characteristics (i.e. the fundamental investment characteristics, column 5, lines 15-17; column 10, lines 24-68 and column 11, lines 1-10).

Regarding claim 17, Lupien further discloses wherein the holding tank in the decision table is configured to store at least one order until a market-related event occurs (column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 7, lines 15-50; column 9, lines 43-54; column 10, lines 24-68; column 11, lines 1-20; column 12, lines 26-68).

Regarding claim 18, Lupien further discloses that wherein the decision table includes, in at least one of a condition and an action of at least one of the rules, a nested decision table (see abstract and see column 3, lines 43-45; column 6, lines 15-45 and lines 53-59; column 10, lines 24-68; column 12, lines 53-66).

Regarding claim 19, Lupien further discloses that wherein the rules define a sequence of actions to be taken using explicit control instructions (see column 3, lines 43-45; column 6, lines 15-45 and lines 53-59; column 10, lines 24-68 and column 11, lines 1-10; column 12, lines 53-66).

Regarding claim 20, Lupien further discloses that wherein the at least one action is to request information from an order room (i.e. registered broker/dealer, see column 11, lines 38-42).

Regarding claim 21, Lupien further discloses that wherein the at least one action is to transfer to another rule (see column 3, lines 28-34; column 10, line 61 – column 11, line 10; column 12, lines 26-52).

Regarding claim 22, Lupien further discloses that wherein the specified event is receiving of an order (see column 3, lines 28-34; column 4, lines 32-36).

Regarding claim 23, Lupien further discloses that wherein the specified event is completing price discovery (see Fig 4; column 9, lines 43-54; column 12, lines 26-66; column 4, lines 32-36).

Regarding claim 24, Lupien further discloses that wherein the specified event is receiving a bid or offer relating to an order handled by the order handling process (see Fig 4; column 9, lines 43-54; column 12, lines 26-66; column 4, lines 32-36).

Regarding claim 25, Lupien further discloses that wherein the specified event is receiving notice of a price improvement opportunity (see column 3, lines 28-34; column 9, lines 43-54; column 12, lines 26-66; column 4, lines 32-36).

Regarding claim 26, Lupien further discloses that wherein the specified event is reporting execution of an order (see column 3, lines 28-34; column 9, lines 43-54; column 12, lines 26-66; column 4, lines 32-36).

Regarding claims 27 and 30, Lupien discloses wherein the at least one action is selected by the owner of the process from the group comprising (i) generating an order, (ii) obtaining more information, and (iii) evaluating another rule in the decision table (column 3, lines 7-14 and lines 23-45; column 4, lines 31-36; column 6, lines 2-68; column 7, lines 15-26 and lines 39-43; column 9, lines 7-11 and lines 43-55; column 10, lines 1-8; column 10, line 61 – column 11, line 20; column 11, lines 34-37 and lines 66-68; column 12, lines 26-32, lines 48-51 and lines 58-61).

Regarding claim 33, Lupien discloses a system for facilitating trading, comprising:

a computer having a processing component (see Fig 1), wherein the processing component is configured to process an order by retrieving a decision table having rules that specify at least one condition and at least one action to be taken when the at least one condition is satisfied (see column 3, lines 43-45 and column 6, lines 24-26 and lines 37-45; column 10, line 9 – column 11, line 9), wherein the decision table further includes a holding tank capable of storing a plurality of orders that have been generated but not yet submitted for execution at a market (Figures 7-8; column 3, lines 7-31; column 7, lines 15-26 and 39-50; column 11, lines 11-20, 34-37 and 66-68; column 12, lines 58-66), and

wherein at least one action of at least one rule in the decision table is to store an order in the holding tank, the holding tank having one or more conditions associated therewith, the processing component being further configured to monitor the one or more conditions of the holding tank and when the one or more conditions are met, to remove the orders from the holding tank and taking at least one specified action with respect to each of the removed orders (Figures 7-8; column 3, lines 7-14, lines 23-36 and lines 43-45; column 6, lines 22-26, lines 37-45; column 7, lines 15-50; column 10, lines 1-23; column 10, line 61 – column 11, line 20; column 11, lines 66-68; column 12, lines 26-66).

Regarding claim 40, Lupien discloses a computer-accessible medium having executable instructions stored thereon for facilitating trading, wherein the instructions, when executed, cause a computer to:

Process an order in accordance with a decision table, wherein the decision table has rules that specify at least one condition and at least one action to be taken when the at least one condition is satisfied (see column 3, lines 43-45 and column 6, lines 24-26 and lines 37-45; column 10, line 9 – column 11, line 9), wherein the decision table further includes a holding tank capable of storing a plurality of orders that have been generated but not yet submitted for execution at a market (Figures 7-8; column 3, lines 7-31; column 7, lines 15-26 and 39-50; column 11, lines 11-20, 34-37 and 66-68; column 12, lines 58-66), and wherein at least one action of the at least one rule in the decision table is to store an order in the holding tank (column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 7, lines 15-50; column 9, lines 43-54; column 10, lines 24-68 and column 11, lines 1-68; column 12, lines 53-68).

wherein the instructions, when executed, further cause the computer to monitor the one or more conditions associated with the holding tank and when the one or more conditions are met, to remove the orders from the holding tank and take at least one specified action with respect to each of the removed orders (Figures 7-8; column 3, lines 7-14, lines 23-36 and lines 43-45; column 6, lines 22-26, lines 37-45; column 7, lines 15-50; column 10, lines 1-23; column 10, line 61 – column 11, line 20; column 11, lines 66-68; column 12, lines 26-66).

Regarding claims 34 and 41, Lupien discloses wherein the one or more conditions of the holding tank includes a market-related event, and wherein the holding tank is configured to store at least one order until the market-related event occurs

Art Unit: 3692

(column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 7, lines 15-50; column 9, lines 43-54; column 10, lines 24-68; column 11, lines 1-20; column 12, lines 26-68).

Regarding claims 35 and 42, Lupien discloses wherein the one or more conditions of the holding tank includes a period of time, and wherein the holding tank is configured to store at least one order until the period of time has elapsed (see column 10, lines 1-7; column 12, lines 53-68).

Regarding claims 36-37 and 43-44, Lupien discloses a market for trading between two or more processes operating via the computer, and wherein the one or more conditions of the holding tank is a condition internal to the market (column 3, lines 7-14 and lines 23-45; column 4, lines 32-36; column 6, lines 20-40; column 7, lines 15-50; column 9, lines 43-54; column 10, lines 24-68; column 11, lines 1-20; column 12, lines 26-68) and external to the market (column 3, lines 23-28; column 4, lines 61-65; column 6, lines 24-26 and lines 37-45; column 7, lines 15-50; column 10, lines 1-27; column 11, lines 11-20; column 12, lines 26-68).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3692

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 28-29, 31-32, 38-39 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lupien as applied to claims 1 and 12 above, and further in view of US Patent 6,377,940 B2 to Tilfors et al. (further referred to as Tilfers).

Lupien does not disclose a plurality of holding tanks wherein one or more conditions associated with each holding tank are separate from the one or more conditions associated with other holding tanks in the plurality of holding tanks. However, Tilfers discloses a plurality of holding tanks wherein one or more conditions associated with each holding tank are separate from the one or more conditions associated with other holding tanks in the plurality of holding tanks (Abstract, Figures 1-2; column 2, line 47 – column 3, line 56). It would be obvious to one of ordinary skill in the art to adapt the use of multiple holding tanks as disclosed by Tilfers with the use of a holding tank for trading as disclosed by Lupien. The motivation would be to include multiple sources and means of control from which orders can be stored upon generation and wait for execution, such as perhaps a holding tank for trades related to fortune 500

Art Unit: 3692

companies, a holding tank for trades with time limits, a holding tanks for various types of investors, etc.

Response to Arguments

Applicant has argued that Lupien fails to disclose a holding tank capable of storing orders and responding to defined conditions, where the order has been generated but not yet submitted for execution at a market. However, Examiner points to referenced sections as found in the above rejection and in the previous Office Action where Lupien shows orders generated but not yet executed at a market which are held in a holding tank and where the orders are released based on particular conditions being met. Figure 7, for example, shows where orders are generated (step 40) and then where orders are held and can be altered (step 42) until a match can be met (step 44 and beyond). Similarly, Figure 8 shows where buy and sell orders are stored and again where changes can be made while the order is being held (step 70) prior to matching orders (step 82). This is described in further detail in the specification, as outlined in the rejection presented above.

Applicant argues that Lupien does not disclose a decision table, where an action is selected by the owner of the process. However, Examiner points to the referenced section is Lupien where a computer holds data for making decisions related to buy and sell decisions, where the data is based on individual investment goals and objectives, as well as market-driven events. The orders are generated and then held until

Art Unit: 3692

conditions are met at which point the orders are executed. Such references are found in columns 3, 4, 6, 7 and 9-12.

Applicant's remarks regarding new claims as added have been addressed in the rejection of those claims as details above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to Jennifer Liversedge whose telephone number is 571-272-3167. The examiner can normally be reached on Monday – Friday, 8:30 – 5 PM.

Art Unit: 3692

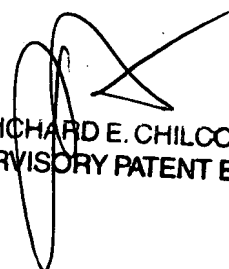
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at 571-272-6777. The fax number for the organization where the application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Liversedge

Examiner

Art Unit 3692



RICHARD E. CHILCOT, JR.
SUPERVISORY PATENT EXAMINER